REMARKS/ARGUMENTS

Claims 1-26 are pending in this Application.

Claims 1, 11, 12, 18, 19, and 26 are currently amended. Applicants submit that support for the claim amendments can be found throughout the specification and the drawings. Claims 1-26 remain pending in the Application after entry of this Amendment. No new matter has been entered.

In the Office Action, claims 1-26 are rejected under 35 U.S.C. § 112, second paragraph. Claims 1-26 stand rejected under 35 U.S.C. § 101 as failing to provide a useful, concrete and tangible result. Claims 1-3, 7, 9-14, 18, 20-21 and 25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over non-patent literature entitled "Implementing Oracle Workflow," by Mathieson (hereinafter "Mathieson"), in view of U.S. Patent Application Publication 2001/0002485 to Bisbee (hereinafter "Bisbee"). Claims 4-6, 15-17 and 22-24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Mathieson, in view of Bisbee, and in further view of non-patent literature entitled "Integrating XML and Databases," by Bertine (hereinafter "Bertino"). Claim 8 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Mathieson, in view of Bisbee, and in further view of Official Notice. Claim 26 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Mathieson, in view of Bisbee, in view of Bertino, and in further view of Official Notice.

Claim Rejections Under 35 U.S.C. § 112, Second Parapraph

Applicants respectfully traverse the rejections and request reconsideration and withdrawal of the rejections under 35 U.S.C. § 112, second paragraph. The Office Action alleges that claims 1, 12, 19, and 26 contain "and/or" which causes the meets and bounds of the claim to be unclear. Applicants respectfully disagree.

Applicants submit that the phrase "and/or" in the corresponding claims does not cause the meets and bounds of the claims to be unclear. For example, previously pending claim 1 recite, in part, executing a rule associated with an electronic record to determine whether an electronic signature is required to "connote review and/or approval of the electronic record."

The phrase "and/or" modifies the type of electronic signature. The terms "review" and "approval," provide the readily discernable meets and bounds in claim 1 for the type of electronic signature required by the "and/or" modifier.

However, in order to improve readability of the corresponding claims, and to expedite prosecution of this Application, Applicants have amended the claims to remove the phrase "and/or approval." For example, amended claim 1 recites to "connote review of the electronic record."

The Office Action further alleges that the term "unstructured data" in claims 4, 5, 6, 8, 15, 16, 22, and 23 renders the claim indefinite. Applicants respectfully disagree.

The Examiner alleges that Applicants deviate from what one ordinarily skilled in the art would understand the term "unstructured data" to mean. The Examiner states that as it appears from the specification and the presented arguments, the intended interpretation of "unstructured data" could have nothing to do with the structure of the document.

Applicants respectfully submits that one ordinarily skilled in the art would understand, in light of the specification, the term "unstructured data" to mean in the corresponding claims.

In general, the term unstructured data can mean different things in different contexts. Applicants previously indicated that typically, the entire spectrum of data that is less structured than database entries is categorized under the term "unstructured data." Applicants also indicated that one ordinarily skilled in the art would also understand that data with some form of structure may also be referred to as unstructured data if the structure is not helpful for a desired processing task.

In the context of relational database systems, unstructured data typically refers to data that can't be stored in rows and columns of the database. This data generally is stored instead in a CLOB (character large object) or BLOB (binary large object), which are generally catch-all data types. (Application: Paragraph [0048]). This storing of unstructured data may be found as features of various claims. For example, claim 4 recites the feature of storing the electronic record as unstructured data in a character large object (CLOB) format. The primary purpose of the second requirement of definiteness of claim language under 35 U.S.C. § 112 is to

Appl. No. 10/731,655
Amdt. dated February 13, 2007
Reply to Office Action of November 17, 2006

PATENT

ensure that the scope of the claims is clear, so the public is informed of the boundaries of what constitutes infringement of the patent. Applicants respectfully submit that one ordinarily skilled in the art would understand the scope of storing an electronic record as unstructured data in a character large object (CLOB) format as recited in claim 4.

Accordingly, Applicants respectfully traverse the rejections and request reconsideration and withdrawal of the rejections under 35 U.S.C. § 112, second paragraph.

Claim Rejections Under 35 U.S.C. § 101

Applicants respectfully traverse the rejections and request reconsideration and withdrawal of the rejections under 35 U.S.C. § 101. The Office Action alleges that claims 1-26 fail to provide a useful, concrete, and tangible result. Applicants respectfully disagree.

Applicants note that the burden is on the USPTO to set forth a prima facie case of unpatentability. Therefore, if USPTO personnel determine that it is more likely than not that the claimed subject matter falls outside all of the statutory categories, they must provide an explanation. Applicants see no explanation in the Office Action providing a prima facie case of unpatentability, other than a conclusion that claims 1-26 fail to provide a useful, concrete, and tangible result.

Applicants respectfully submit that claims 1-26 produce a useful, concrete, and tangible result. For example, amended claim 1 recites the feature of requesting an electronic signature prior to committing a database transaction to a database. Applicants point the Examiner to the decision by the Federal Circuit: State Street Bank & Trust Co. v. Signature Financial Group, Inc., 149 F.3d 1368 (Fed.Cir. 1998), where the Federal Circuit upheld the patentability of claims involving the mathematical manipulation of data representing dollar amounts:

> [T]ransformation of data, representing discrete dollar amounts, by a machine through a series of mathematical calculations into a final share price, constitutes a practical application of a mathematical algorithm, formula, or calculation . . . . (MPEP 2106(A), citing State Street, 149 F.3d at 1373.)

In State Street, merely transforming data representing dollar amounts was held to be a practical application. Applicants respectfully submit that actually conveying the determined

or computer dollar amounts, if recited in the claims of <u>State Street</u>, would even more clearly provide a useful, concrete, and tangible result. In contrast to the claims held patentable of <u>State Street</u>, claim 1 not only recites that a determination is made whether an electronic signature is required to connote review of the electronic record, but claim 1 further recites that the electronic signature is requested. Similar to the clearly "useful, concrete and tangible result" of the hypothetical conveying of the determined or computer dollar amounts in <u>State Street</u>, the actual conveying or requesting of the electronic signature prior to committing the database transaction to the database as recited in claim 1 also clearly provides a useful, concrete, and tangible result for patentability under 35 U.S.C. § 101.

Moreover, the tangible requirement under 35 U.S.C. § 101 does not necessarily mean that a claim must either be tied to a particular machine or apparatus or must operate to change articles or materials to a different state or thing. However, the tangible requirement does require that the claim must recite <u>more than a 35 U.S.C. § 101 judicial exception</u>. The opposite meaning of "tangible" is "abstract." Another consideration under 35 U.S.C. § 101 is whether the invention produces a "concrete" result. The process must have a result that can be <u>substantially repeatable or the process must substantially produce the same result again</u>. <u>In re Swartz</u>, 232 F.3d 862, 864, 56 USPQ2d 1703, 1704 (Fed. Cir. 2000). The result, as recited in claim 1, of requesting the electronic signature prior to committing the database transaction to the database is not merely an abstract idea, but a tangible result that can be detected and relied upon. Furthermore, the result, as recited in claim 1, of requesting the electronic signature prior to committing the database transaction to the database <u>is substantially repeatable</u> each time execution of the rule, as recited in claim 1, results in the determination that the electronic signature is required.

In another example, dependent claim 7 recites the feature of "displaying at least some of the transaction data in the electronic record on a computer display and requesting the electronic signature." Applicants submit that display of information is a real-world function that provides useful, concrete, and tangible results.

Furthermore, claim 26 recites the feature of "i) <u>displaying the transaction data</u> in the electronic record according to a predefined layout set forth in an XSL style sheet associated

Appl. No. 10/731,655
Amdt. dated February 13, 2007
Reply to Office Action of November 17, 2006

PATENT

with the electronic record and storing a copy of the transaction data as displayed in a character

large-object (CLOB) format of a second column of the database table and (ii) requesting,

obtaining and verifying the electronic signature prior to committing the transaction into a

database." Applicants respectfully submit that the patentable claims of State Street failed to

include any of the above recited features as recited in claim 26.

Accordingly, as claims 1-26 recite more than the mere manipulation of data held

to be patentable in State Street, Applicants respectfully submit that claims 1-26 provide a

"useful, concrete, and tangible result."

Claim Rejections Under 35 U.S. C. § 103(a)

Applicants respectfully traverse the rejections and request reconsideration and

withdrawal of the rejections under 35 U.S.C. § 103(a) based on Mathieson, in view of Bisbee.

The Office Action alleges that the combination of references teach or disclose all of the claimed

limitations of the corresponding claims and that one having ordinary skill in that art at the time

of the invention would have been motivated to incorporate the teachings of Mathieson with the

teachings of Bisbee.

Applicants respectfully submit that a prima facie case of obviousness has not been

established by the evidence presented in the Office Action. In order to establish a prima facie

showing of obviousness, three requirements must be satisfied: all limitations of a pending claim

must be expressly or impliedly disclosed by prior art references; there must be a suggestion or

motivation in the art for the ordinarily skilled artisan to combine the limitations; and there must

be a reasonable expectation of success in making such a combination. (M.P.E.P. § 2143).

In light of the above-recited requirements, Applicants respectfully submit that

Mathieson and Bisbee, either individually or in combination, fail to teach or suggest at least one

of the claimed limitations recited in each of the corresponding claims.

Claim 1

Amended claim 1 recites a method of committing a transaction to a database. As

recited in claim 1, the method includes initiating a database transaction. An electronic record is

Appl. No. 10/731,655
Amdt. dated February 13, 2007
Reply to Office Action of November 17, 2006

PATENT

created that includes transaction data from the database transaction. A rule associated with the electronic record is executed to determine whether an electronic signature is required to connote review and/or approval of the electronic record. If execution of the rule results in a determination that an electronic signature is required, the electronic signature is requested prior to committing the database transaction to the database.

Applicants respectfully submit that Mathieson and Bisbee, either individually or in combination, fail to teach or suggest each and every claim limitation as recited in claim 1.

Mathieson is directed to using Oracle Workflow to create and implement a document workflow. Workflow at CERN involves the forwarding of an electronic document to the people who are required to approve it. (Mathieson: Page 2, first full paragragh). Within Oracle Worflow Builder, Mathieson defines how each document should be routed. (Mathieson: Page 2, third paragragh). Documents, such as a purchase order, are created using a web-based interface (see FIG. 1). Once a document has been created, clicking the "Send" button initiates the Workflow Process. (Mathieson: Page 2, line 1). Mathieson further describes at least two workflow process specific to operations of CERN (see FIGS. 2 and 3).

In the Office Action, the Examiner has made the following associations between claim limitations of claim 1 and teachings of Mathieson:

- *initiating a database transaction* ← → "Start" of FIG. 3
- *creating an electronic record* ← → created a purchase order using GUI in FIG. 1
- *requesting an electronic signature* ← → "End[Approved]" of FIG. 3

Applicants respectfully submit that the "Start" of FIG. 3 in Mathieson does not teach or suggest initiating a database transaction as recited in claim 1. FIG. 3 of Mathieson depicts a document workflow, which depicts CERN Standard Financial Routing. In other words, FIG. 3 of Mathieson defines the movement of documents and/or tasks through the standard financial work process established at CERN. The "Start" of FIG. 3 of Mathieson represents the initial starting point of each document, such as a purchase order, in CERN's financial workflow identifying how tasks are structured, who performs them, what their relative order is, how they are synchronized, how documents flow to support the tasks, and how tasks are tracked.

Appl. No. 10/731,655
Amdt. dated February 13, 2007
Reply to Office Action of November 17, 2006

PATENT

Mathieson also disclose that once the purchase order has been created, clicking the send button initiates the workflow process. The "Start" node of Mathieson is merely a visual representation of the beginning of a workflow process. Thus, the "Start" of Mahtieson is substantially different from the initiation of a database transaction as recited in claim 1.

Applicants respectfully submit that the web GUI of FIG. 1 does not teach or suggest creating an electronic record that includes transaction data from the database transaction as recited in claim 1. As depicted in FIG. 1 of Mathieson, a user enters information into fields of a web page. Creating a document using data entered into a web page as in Mathieson does not necessary teach or suggest creating an electronic record that includes transaction data from the database transaction as recited in claim 1. Event under the broadest reasonable interpretation of the claim, Applicants submit that Mathieson fails to make clear to persons ordinarily skilled in the art that the data entered into the web page is necessarily transaction data from a database transaction as recited in claim 1.

Applicants respectfully submit that the "End[Approved]" of FIG. 3 of Mathieson does not teach or suggest if execution of the rule results in a determination that an electronic signature is required, requesting the electronic signature prior to committing the transaction to the database. First the "End[Approved]" of FIG. 3 of Mathieson merely indicates the end of document routing in the workflow process. Additionally, the paths leading to the different "End[Approved]" nodes of FIG. 3 of Mathieson merely indicated that at certain nodes during document routing a signature is required at a decision point. The indication that a signature is required as on Mathieson does not necessarily teach or suggest that an electronic signature is requested as recited in claim 1. Moreover, the mere determination in Mathieson that a signature is required does not teach or suggest that an electronic signature is requested prior to committing a database transaction to a database as recited in claim 1.

Applicants further respectfully submit that Mathieson also teaches away requesting an electronic signature prior to committing the database transaction to the database as recited in claim 1. For example, Mathieson discloses that a special message was implemented to specifically cause the workflow engine to commit its transaction. Mathieson recognizes that this approach causes some risk because the workflow engine relies on the ability to roll back to a

previous state in the event of an error. However, because the workflow engine of Mathieson cannot view the current state of a document, Mathieson suggests that the transaction be committed during workflow activities. Accordingly, Mathieson specifically teaches to commit the transaction during all workflow activities, whereas claim 1 requires requesting the electronic signature prior to committing the database transaction to the database.

In light of the above, Applicants respectfully submit that Mathieson fails to teach or suggest each and every claimed limitation of claim 1. The Office Action further merely relies upon Bisbee for is teachings as allegedly disclosing committing the transaction to a database. Applicants respectfully submit that Bisbee fails to cure the deficiencies of Mathieson as discussed above.

Accordingly, Applicants respectfully submit that Mathieson and Bisbee, either individually or in combination, fail to teach or suggest each and every claim limitation as recited in claim 1. Thus, Applicants submit that claim 1 is allowable over the cited references.

Claims 2-26

Applicants further respectfully submit that the teachings of Bertino and the Official Notice taken by the Examiner further fail to cure the deficiencies of Mathieson and Bisbee. Mathieson, Bisbee, Bertino, and the Office Notice taken by the Examiner, either individually or in combination, fail to teach or suggest each and every claim limitation of the corresponding claims, and do not provide evidence sufficient to establish a prima facie case of obviousness.

Accordingly, Applicants respectfully submit that independent claims 12, 19, and 26 are allowable for at least a similar rationale as discussed above for the allowability of claim 1, and others. Applicants submit that dependent claims 2-11, and 13-25 that depend directly and/or indirectly from the independent claims 1 and 12 respectively, are also allowable for at least a similar rationale as discussed above for the allowability of the independent claims. Applicants further submit that the dependent claims recite additional features that make the dependent claims allowable for additional reasons.

Appl. No. 10/731,655
Amdt. dated February 13, 2007
Reply to Office Action of November 17, 2006

PATENT

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,

/Sean F. Parmenter/
Sean F. Parmenter
Reg. No. 53,437

TOWNSEND and TOWNSEND and CREW LLP
Two Embarcadero Center, Eighth Floor
San Francisco, California 94111-3834
Tel: 650-326-2400
Fax: 650-326-2422
SFP:am
60924925 v1